

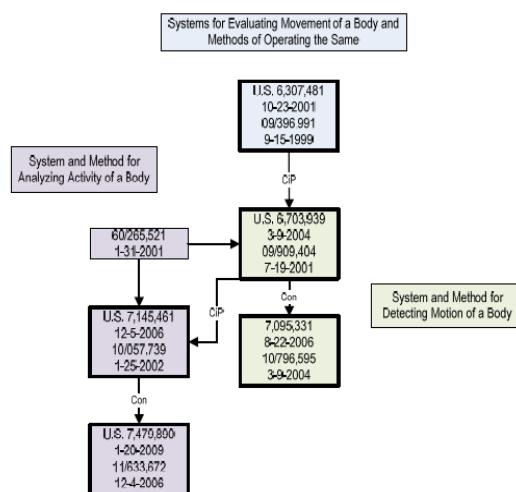
**IN THE UNITED STATES DISTRICT COURT FOR THE
WESTERN DISTRICT OF PENNSYLVANIA**

iLIFE TECHNOLOGIES INC.)
Plaintiff,)
v.) Civil Action No. 14-990
BODY MEDIA, INC.)
Defendant.)

MEMORANDUM OPINION

This patent infringement case involves five asserted patents, United States Patent Numbers 6,307,481 (the “‘481 Patent”), 6,703,939 (the “‘939 Patent”), 7,095,331 (the “‘331 Patent”), 7,145,461 (the “‘461 Patent”), and 7,479,890 (the “‘890 Patent”), and twenty-seven asserted claims. (ECF No. 66-1 at 4.) iLife Technologies Inc.’s (“iLife”) complaint references a sixth patent, United States Patent Number 6,864,796, but iLife confirmed at the technology tutorial that it no longer asserts any claims based upon that patent, and all such claims should be dismissed, without prejudice. (ECF No. 96 at 2) The patents, generally, disclose systems and methods for evaluating movement or activity of a body in relationship to an environment. (ECF No. 66 at 6.)

The patents are all related, as is reflected in the below flow chart:



(ECF No. 76 at 7.) This chart reflects that the first patent was applied for in 1999 and issued in 2001, and the most recent patent was applied for in 2006 and issued in 2009. The chart also reflects that although the patents are related, they fall into three distinct categories: (1) those that evaluate body movement (the '481 Patent, which is the parent patent); (2) those that detect body motion (the '939 and '331 Patents); and (3) those that analyze body activity (the '461 and '890 Patents). iLife is the owner by assignment of all the asserted patents.

The parties' joint disputed claim terms chart asks this court to construe nine claim terms or phrases, and Body Media Inc. ("Body Media") contends that nine other claim terms or phrases are indefinite, rendering the pertinent patent claims invalid. (ECF No. 64-1 at 3-11.)¹ The parties agreed upon the construction of several claim terms that were originally disputed, and set forth the stipulated constructions at the beginning of the amended joint disputed claim terms chart. (*Id.* at 1-2.) Although the court is not bound by those proposals, as they ultimately concern a question of law, the court finds adequate support for each agreed upon construction in the intrinsic record, and, therefore, adopts the parties' stipulated constructions as set forth in the accompanying order. Labyrinth Optical Technologies, LLC v. Ciena Communications, Inc., No. 12-2217, 2013 WL 9602736, at *7 (C.D. Cal. Dec. 18, 2013) (citing Exxon Chemical Patents, Inc. v. Lubrizol Corp., 64 F.3d 1553, 1555 (Fed. Cir. 1995); MyMail, Ltd. v. Am. Online, Inc., 476 F.3d 1372, 1377-78 (Fed. Cir. 2007).) In addition, Body Media withdrew its proposed construction of two claim phrases, effectively agreeing with iLife's position that the plain and ordinary meaning should apply for purposes of this case. (ECF No. 76 at 27 (indicating that the court need no longer construe "relative to a three dimensional frame of reference in said environment"/"with respect to said three dimensional frame of reference" and "no movement for

¹ Although the bulk of disputes raised by the parties concern claim phrases, and not claim terms, the court will refer to both as claim terms for simplicity.

a predetermined period of time”.) This court must, therefore, construe seven claim terms and decide whether nine claim terms are indefinite.

iLife filed an opening claim construction brief, to which Body Media responded. (ECF Nos. 66 and 76.) Both parties filed identifications of extrinsic evidence with their initial briefs. (ECF Nos. 67 and 77.) iLife filed a claim construction reply brief. (ECF No. 78.) On January 15, 2015, a technology tutorial was held. (ECF No. 96.) The next day, the court ordered the parties to make additional submissions directed specifically to the effect that disclosure of new matter in the continuation-in-part patents (i.e., the ’939 and ’461 Patents) might have on claim construction in this case. (1/16/2015 Text Order; ECF Nos. 98 and 99.) Following the Markman hearing, which was held on February 3, 2015, and as requested by the court, the parties filed a joint submission regarding the person of ordinary skill in the art. (ECF No. 101.)

The matter of claim construction is fully briefed. The primary claim construction disputes focus on whether the iLife patents disclose inventions that monitor any and all body² movement, or only those movements (or lack of movements) that signify an abnormal or harmful event, such as a fall or a baby’s suffocation.

I. LEGAL STANDARDS

A. Generally Applicable Principles of Claim Construction

The general principles of claim construction are without dispute. The proper construction of a patent’s claims is a question of law. Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S.Ct. 831, 837 (2015) (citing Markman v. Westview Instruments, Inc., 517 U.S. 370, 388-91 (1996)). The Supreme Court recently held that where a court must consider extrinsic evidence to arrive at the proper claim construction, the clearly erroneous standard of review applies to any subsidiary factual findings. Id. at 837-38, 841-42. “It is a ‘bedrock principle’ of patent law that

² The patents explicitly state that the term “body” is not limited to a human being.

‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The words of a claim “are generally given their ordinary and customary meaning,” which “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” Id. at 1312-13 (citing Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed Cir. 1996)); Innova/Pure Water, 381 F.3d at 1116). In arriving at this meaning, a court is to look first and foremost to the “intrinsic evidence,” which consists of the patent’s claim language, the specification and written description, and the prosecution history, to determine the meaning of disputed claim terms. Phillips, 415 F.3d at 1311-17; Medrad, Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed. Cir. 2005). The specification is the single best guide to the meaning of a disputed term, and is “usually...dispositive.” Phillips, 415 F.3d at 1315 (citing Vitronics, 90 F.3d at 1582).

Claim language guides the court’s construction of claim terms. Phillips, 415 F.3d at 1314. Yet, the “claims cannot enlarge what is patented beyond what the inventor has described as the invention.” Abbott Laboratories v. Sandoz, Inc., 566 F.3d 1282, 1288 (Fed. Cir. 2009) (citing Biogen, Inc. v. Berlex Labs., Inc., 318 F.3d 1132, 1140 (Fed. Cir. 2003)). The context in which a term is used not only in the asserted claims, but also in any claims that are not being asserted in a particular lawsuit, can be highly instructive because “terms are normally used consistently throughout the patent.” Phillips, 415 F.3d at 1314. “The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will

be, in the end, the correct construction.” Renishaw PLC v. Marposs Societa per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998).

Claims are always to be read in view of the specification, of which they are a part. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996). “The person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” Phillips, 415 F.3d at 1313. Moreover, “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone” the specification can provide clarity. Teleflex, Inc. v. Ficosa N. Am. Corp., 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own terms, or give a claim term a different meaning than it would otherwise possess. Id. at 1316. Although a court generally presumes terms possess their ordinary meaning, this presumption can be overcome when the patentee acts as his own lexicographer. Irdeto Access, Inc. v. EchoStar Satellite Corp., 383 F.3d 1295, 1301 (Fed. Cir. 2004).

“Although the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims.” Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571 (Fed. Cir. 1988); see Phillips, 415 F.3d at 1323. Nonetheless, “[a] claim interpretation that excludes a preferred embodiment from the scope of the claim ‘is rarely, if ever, correct.’” Globetrotter Software, Inc. v. Elam Computer Grp. Inc., 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting Vitronics Corp., 90 F.3d at 1583). Even if a patent describes only a single embodiment, the claims of the patent must not be construed as being limited to that

embodiment unless the patentee has demonstrated a clear intention to limit the claim scope using “words or expressions of manifest exclusion or restriction.” Phillips, 415 F.3d at 1323; Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 906 (Fed. Cir. 2004) (citing decisions); Teleflex, 299 F.3d at 1327. The purpose of the specification is “to teach and enable those of skill in the art to make and use the invention” and sometimes, the best way to do that is to provide an example. Teleflex, 299 F.3d at 1327. Although the Court of Appeals for the Federal Circuit acknowledges that “the distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim can be a difficult one to apply in practice,” it instructs courts to maintain their focus on how a person of ordinary skill in the art would understand the claim terms. Id.

The prosecution history is another tool that supplies the proper context for claim construction. Home Diagnostics Inc. v. LifeScan, Inc., 381 F.3d 1352, 1356 (Fed. Cir. 2004). Because the file history “represents an ongoing negotiation between the [United States Patent and Trademark Office (“PTO”)] and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful in claim construction proceedings.” Phillips, 415 F.3d at 1317. Nevertheless, the prosecution history is intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. Id. Where an applicant limits claim scope during prosecution through a “clear disavowal of claim coverage, such as an amendment to overcome a rejection,” the well-established doctrine of prosecution disclaimer “preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.” Amgen Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1327 (Fed. Cir. 2003) (citing York Prods., Inc. v. Central

Tractor Farm & Fam. Ctr., 99 F.3d 1568, 1575 (Fed. Cir. 1996)); see Omega Eng’g Inc. v. Raytek Corp., 334 F.3d 1314, 1323 (Fed. Cir. 2003). By distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover. Spectrum Int’l v. Sterilite Corp., 164 F.3d 1372, 1378-79 (Fed. Cir. 1988) (quotation omitted). In order for the doctrine to apply, however, the prosecution history must show that the patentee clearly, unambiguously and unmistakably disclaimed or disavowed the proposed interpretation during prosecution in order to obtain claim allowance. Schindler Elevator Corp. v. Otis Elevator Co., 593 F.3d 1275, 1285 (Fed. Cir. 2010); Cordis Corp. v. Medtronic AVE, Inc., 339 F.3d 1352, 1358 (Fed. Cir. 2003); Middleton Inc. v. 3M Co., 311 F.3d 1384, 1388 (Fed. Cir. 2002).

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. Phillips, 415 F.3d at 1319-24. Still, though “less significant than the intrinsic record in determining the legally operative meaning of claim language,” a court may rely on extrinsic evidence to “shed useful light on the relevant art.” Id. at 1317 (quotation omitted). Technical dictionaries and treatises may help the court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may not be indicative of how terms are used in the patent. Id. at 1318. Similarly, expert testimony may aid the court in determining the particular meaning of a term in the pertinent field, but “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful.” Id. Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” Id.

B. Indefiniteness

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. The Supreme Court recently described this statutory provision as requiring a “delicate balance” between the “inherent limitations of language” and the need of patents to “afford clear notice of what is claimed, thereby apprising the public of what is still open to them” so as to avoid “a zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims.” Nautilus, Inc. v. Biosig Instruments, Inc., 134 S.Ct. 2120, 2128-29 (2014). “[A]bsent a meaningful definiteness check... patent applicants face powerful incentives to inject ambiguity into their claims.” Id. at 2129.

Whether a claim meets the definiteness requirement is a question of law. Amgen Inc. v. F. Hoffman–LA Roche Ltd., 580 F.3d 1340, 1371 (Fed. Cir. 2009); Young v. Lumenis, Inc., 492 F.3d 1336, 1344 (Fed. Cir. 2007). The primary purpose of the definiteness requirement is to ensure that the claims are written in such a way that they give notice to the public of the extent of the legal protection afforded by the patent so that interested members of the public, e.g., competitors of the patent owner, can determine whether or not they infringe. All Dental Prodx, LLC v. Advantage Dental Prods., Inc., 309 F.3d 774, 779–80 (Fed. Cir. 2002) (citing Warner–Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 28–29 (1997)). In other words, “[a] patent holder should know what he owns, and the public should know what he does not.” Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 535 U.S. 722, 731 (2002).

In order to meet the “exacting standard” to prove indefiniteness, an accused infringer must demonstrate by clear and convincing evidence that the claims, read in light of the specification and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention. Nautilus, 134 S.Ct. at 2124. Prior to Nautilus, a claim

was indefinite only if a challenger could prove, by clear and convincing evidence, that it was “not amenable to construction” or was “insolubly ambiguous.” Halliburton Energy Servs., Inc. v. M-I LLC, 514 F.3d 1244, 1249-50 (Fed. Cir. 2008) (citing Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342, 1347 (Fed. Cir. 2005)).

According to the Supreme Court, the new “reasonable certainty” standard “mandates clarity while recognizing that absolute precision is unattainable.” Nautilus, 134 S.Ct. at 2124. The Court found that the previously-applicable “amenable to construction” and “insolubly ambiguous” standards “breed lower court confusion” and “diminish the definiteness requirement’s public-notice function and foster the innovative-discouraging ‘zone of uncertainty’.” Id. at 2130.

C. Claim Construction and Patent Families

As a general rule, claim language used in one patent of a family is presumed to have the same meaning when used in another patent of the same family, absent clear evidence to the contrary. NTP, Inc. v. Research in Motion, Ltd., 418 F.3d 1282, 1293 (Fed. Cir. 2005). “Any statement of the patentee in the prosecution of a related application as to the scope of the invention [is] relevant to claim construction.” Microsoft Corp. v. Multi-Tech Systems, 357 F.3d 1340, 1350 (Fed. Cir. 2004). “The prosecution history of a related patent can be relevant if, for example, it addresses a limitation in common with the patent in suit.” Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc., 248 F.3d 1303, 1315 (Fed. Cir. 2001).

II. CONSTRUCTION OF DISPUTED CLAIM TERMS

A. Person of Ordinary Skill in the Art

At the Markman hearing, the court asked counsel for both parties to proffer a definition of the person of ordinary skill in the art (“POSA”). The parties indicated that there had been no prior discussion or agreement with respect to this matter, but provided the court with each of their positions on the proper definition to apply in this case. (ECF No. 104 at 4-7.) Following the hearing, as directed by the court, the parties filed a joint notice that a POSA at the time of the inventions set forth in the patents-in-suit, would have had at least either:

- (1) a Bachelor of Science degree in electrical engineering or similar scientific field, with at least some education or experience using and processing accelerometer signals; or
- (2) four years’ experience in manufacturing or engineering, with significant experience with accelerometer signal processing.

(ECF No. 101.) The parties indicated that this definition may change as the case progresses, particularly during and following expert discovery. (Id.)

B. Asserted Patents and Claims

There are five patents-in-suit in this case.

The ’481 Patent is the parent patent, and iLife accuses Body Media of infringing claims 1, 3, 12, 17, 20, 21, 23, 25, 26, and 27. The ’481 Patent issued on October 23, 2001, from an application filed on September 15, 1999. A copy of the ’481 Patent can be found in the record at ECF No. 1-1.

The ’939 Patent issued from a continuation-in-part application of the ’481 Patent. A continuation-in-part application (“CIP”) is defined in the Manual of Patent Examining Procedure (“MPEP”) as “an application filed during the lifetime of an earlier nonprovisional application, repeating some substantial portion or all of the earlier nonprovisional application

and adding matter not disclosed in the said earlier nonprovisional application.” MPEP § 201.08. iLife accuses Body Media of infringing claims 1, 2, 3, 21, and 22 of the ’939 Patent. The ’939 Patent issued on March 9, 2004, from an application filed on July 19, 2001. A copy of the ’939 Patent can be found in the record at ECF No. 1-2.

The ’331 Patent issued from a continuation application of the ’939 Patent. The disclosure made in a continuation application “must be the same as that of the original application; i.e., the continuation should not include anything which would constitute new matter if inserted in the original application.” MPEP § 201.07. In other words, for all pertinent purposes, the specifications of the ’939 Patent and the ’331 Patent are identical. iLife accuses Body Media of infringing claims 1, 2, 11, and 12. The ’331 Patent issued on August 22, 2006, from an application filed on March 9, 2004. A copy of the ’331 Patent can be found in the record at ECF No. 1-4.

The ’461 Patent issued from a CIP application of ’939 Patent. iLife accuses Body Media of infringing claims 1, 2, 3, 21, 22, and 23. The ’461 Patent issued on December 5, 2006, from an application filed on January 25, 2002. The ’461 Patent discloses advantageous embodiments that signal if either low to no activity occurs over a selected period of time, or if a targeted level of activity is not met, and capture “counts” or statistics to later evaluate trends in activity levels. ’461 Patent, col. 4, lns. 5-31. iLife relies heavily, and repeatedly, on these disclosures to prove that the patents-in-suit are not limited to detecting abnormal, harmful, or dangerous movement. There is no dispute that these specification passages do not appear in the ’481 Patent, (ECF No. 93), but the parties dispute whether the new disclosures qualify, under appropriate legal authority, as new matter. (ECF Nos. 98-99.) As will be explained below in Section II.C.1(a), the court need not resolve this dispute during claim construction because the

court does not rely upon the disclosures of the '461 Patent to arrive at the proper construction of the disputed claim terms to which these legal arguments about new matter may apply. A copy of the '461 Patent can be found in the record at ECF No. 1-5.

Finally, the '890 Patent issued from a continuation application of the '461 Patent, making the two patents identical for all relevant purposes. iLife accuses Body Media of infringing claims 1 and 11. The '890 Patent issued on January 20, 2009, from an application filed on December 4, 2006. A copy of the '890 Patent can be found in the record at ECF No. 1-6.

C. Claims to be Construed

The court has been asked to construe seven disputed claim terms. These terms, by the number at which they appear in the amended joint disputed claim terms chart, (ECF No. 64-1), are:

Number	Term
1	"accelerative phenomena"/"accelerative events"
3	"dynamic and static accelerative phenomena of the body"
4	"dynamic acceleration"
5	"static acceleration"
6	"within environmental tolerance"/"within an environmental tolerance"/"within said environmental tolerance"
9	"independent of a starting attitude of said sensor"
11	"distinguish between normal and abnormal accelerative events"

Based upon the arguments raised during claim construction, these seven terms can be grouped into three sets: (1) the environmental tolerance and normal-abnormal terms (terms 6 and 11); (2) the acceleration terms (terms 1, 3, 4, and 5); and (3) the miscellaneous term (term 9).³

³ The reader is directed to ECF No. 66-1 which lists, in chart form, the asserted claims in which each disputed claim term appears. Unless specifically noted by the court, this information is not pertinent to claim construction, and will not be mentioned further in this opinion.

1. Environmental Tolerance and Normal-Abnormal Terms

Term	iLife's Proposal	Body Media's Proposal
within environmental tolerance /within an environmental tolerance/within said environmental tolerance	acceptable based on criteria including a specified value given the environment and application for which body movement is being evaluated	not so abnormal so as to be damaging, crippling, harmful, injurious or otherwise alarming or, possibly, distressing to the body
distinguish between normal accelerative events and abnormal accelerative events	plain and ordinary meaning	distinguishing whether a body movement is normal (e.g., walking, sitting, lying down, etc.) versus abnormal (tripping, falling down, etc.)

Although these two claim terms are not similar in wording, they bear an important relationship to each other, and represent a critical dispute between the parties about the scope and meaning of the patents-in-suit. For this reason, they will be discussed together. The “environmental tolerance” claim terms are found in every asserted claim, except claims 25, 26, and 27 of the ’481 Patent. In those claims of the ’481 Patent, however, the “normal-abnormal accelerative events” claim term is found. According to iLife, this indicates that the normal-abnormal events invention is separate from and unrelated to the environmental tolerance invention. (ECF No. 104 at 9, 16-19, 24, 28-30.) Body Media disagrees on this fundamental point, and contends that the two so-called inventions are two steps of a single invention, with the environmental tolerance determination only being made if an abnormal event occurs. (ECF No. 104 at 48-50, 52, 54-56.)

In addition to the dispute concerning the relationship between abnormality and environmental tolerance, the parties disagree with respect to whether an intolerable movement or event must be damaging or harmful to the body. iLife contends that environmental tolerance indicates only that some criteria has, or has not, been met without any requirement that harm or

damage result. (ECF No. 66 at 20-23.) Body Media argues that the '481 Patent itself indicates that intolerable events always result in harm or damage to the body. (ECF No. 76 at 13-16.)

The court disagrees with Body Media on both points and, after reading the claim language in view of the specification of the '481 Patent, finds that environmental tolerance is not limited to the evaluation of an abnormal movement, and that an intolerable movement, can - but need not - be dangerous or harmful. The court's reasoning for each conclusion will be discussed in detail below. iLife's proposed constructions of both terms will be adopted by the court.

a. The Effect of Disclosures that Qualify as New Matter on Claim Construction

Before proceeding with claim construction, it must be noted that the court construes this first group of claim terms without referring to the disclosures made in the '461 Patent, which, as explained above, issued from a CIP application of the '481 Patent. The '461 Patent, therefore, by definition repeats some disclosures made in the '481 Patent, but adds new disclosures, called "new matter," that are not found in the '481 Patent.

New matter is defined as subject matter not included in the original specification, claims, or drawings of a patent application. MPEP § 608.04(a); 35 U.S.C. § 132(a) ("[n]o amendment shall introduce new matter into the disclosure"); Intelfuse, Inc. v. Biomedical Enterprises, Inc., No. 05-8093, 2009 WL 3075803, at *8 (S.D.N.Y. Sept. 25, 2009). Patent examiners, and courts, look to the written description requirement of § 112, ¶ 1, to evaluate whether the invention described by the independent claims of a child patent were "adequately disclosed" by the parent application. In re Rasmussen, 650 F.2d 1212, 1214 (C.C.P.A. 1981); see Lockwood v. American Airlines, Inc., 107 F.3d 1565, 1572 (Fed. Cir. 1997). The International

Trade Commission succinctly summarized the importance of determining whether disclosures made in a CIP constitute new matter:

Claims in a continuation-in-part application which are supported by the disclosure of the original application obtain the benefit of the filing date of the original application. However, claims in a continuation-in-part application which must rely for support on the additional disclosure in the continuation-in-part application are only entitled to the filing date of the continuation-in-part application, not the filing date of the original application. The difference in filing dates means that there may be art which is prior art as to claims which require the additional disclosure for support but which is not prior art as to claims supported by the original disclosure.

In the Matter of Certain Rubber Antidegradants, 337-TA-533, 2008 WL 1727623, at *25 n.6 (ITC Jul. 13, 2006), overruled on other grounds, 511 F.3d 1132 (Fed. Cir. 2007).

New matter can also be important to claim construction. Disclosures constituting new matter should not be used to construe claim terms appearing in the parent patent, even if the claim terms are common. Goldenberg v. CytoGen, Inc., 373 F.3d 1158, 1167-68 (Fed. Cir. 2004); CMU v. Marvell Tech. Grp., Ltd., No. 09-290, 2010 WL 3937157, at *25 n.14 (W.D. Pa. Oct. 1, 2010); Certain Rubber Antidegradants, 2008 WL 1727623, at *11 (finding that relying on additional disclosure in a CIP that qualifies as new matter to construe the claims of a parent patent is improper and “would effectively treat the new matter in a CIP application as if it were present in the ancestor application, a contradiction of the very definition of a CIP application”).

Neither of these legal principles concerning new matter is currently pertinent. It is not necessary, at this point in the proceedings, to decide which disclosures in the '461 Patent are new matter because the disclosures of the '481 Patent itself support the claim constructions proposed by iLife, and demonstrate that Body Media's proposed claim constructions are incorrect. Body Media's new matter-based arguments object to iLife's reliance on the broader

disclosures of the '461 Patent (the later-issued child patent), to support its proposed claim constructions. Body Media does not contend that the disclosures of the '461 Patent are more limiting than, or somehow contradict, the disclosures of the '481 Patent. Because the court need not, and does not, consult the specification or claims of the '461 Patent in arriving at the proper construction of this group of claim terms, Body Media's objections to iLife's citation to purportedly broadening, new matter passages from the '461 Patent are immaterial.

The court's rejection of Body Media's proposed claim constructions and arguments, however, should not be understood as expressing any opinion about new matter, enablement, or priority dates of the '461 Patent. Those issues are not before the court. The court notes that the present factual record is insufficient, in any event, for this court to make the necessary findings with respect to the written description requirement of § 112, ¶ 1, and that neither party presented any legal authority with respect to how a court determines whether a disclosure in a CIP application constitutes new matter, and how such legal principles would apply in this case.

b. Construction of Environmental Tolerance Terms

i. Abnormality Need Not Precede Environmental Tolerance Determination

First, the court rejects Body Media's assertion that environmental tolerance is determined only if an abnormal event is first detected. Body Media impliedly makes this assertion by proposing that "within environmental tolerance" be construed to mean "not so abnormal to be damaging..." (ECF No. 76 at 12.) The intrinsic evidence does not support Body Media's proposed construction.

Body Media accurately culled from the specification of the '481 Patent various statements indicating that movements are evaluated for tolerance after it is determined that they are abnormal. (ECF No. 76 at 13-15 (collecting and discussing citations from columns 1, 2, 5, and 11 of the '481 Patent).) What Body Media does not, and cannot, do, however, is demonstrate that the remainder of the '481 Patent teaches that no other arrangement or permeation of the invention can exist. Instead, each specification passage relied upon by Body Media is prefaced with the qualifier that a preferred or illustrative embodiment or implementation is being discussed. Elsewhere in the '481 Patent, embodiments are discussed in which environmental tolerance is determined without reference to abnormality. See e.g., '481 Patent, col. 2, lns. 10-22 and 59-66; col. 8, lns. 50-67; col. 9, lns. 11-33; col. 11, lns. 13-20. In particular, the patent discloses respiration and ECG modules that assess environmental tolerance without any reference to or mention of a prior determination of abnormality. '481 Patent, col. 9, lns. 11-33. Body Media's proposed construction directly contradicts the specification of the '481 Patent, and cannot be correct for that reason alone.

The claims confirm that environmental tolerance can be determined separate and apart from abnormality. '481 Patent, cls. 1-24 and 25-32. Independent claims 1 and 21 require a determination about whether body movement is "within environmental tolerance." Dependent claims 2 through 20, and 22 through 24, therefore, include that limitation as well. The terms normal and abnormal do not appear in claims 1 through 24. Independent claim 25 requires that output signals "distinguish between normal accelerative events and abnormal accelerative events." The remaining claims of the '481 Patent all depend from claim 25, and, therefore, include that limitation as well. The phrase "environmental tolerance" does not appear in claims 25 through 32. This claim structure indicates, in conformity with the specification, that a

determination of abnormality need not precede all determinations of environmental tolerance, and makes Body Media’s proposed construction incorrect.

Body Media nevertheless contends that the prosecution history “compels” its proposed construction. (ECF No. 76 at 15.) In support of its argument, Body Media relies upon a single item from the ’481 Patent’s file wrapper - an appeal brief submitted to the examiner to overcome obviousness rejections. (*Id.*; ECF No. 76-2.) According to Body Media, because iLife refers to the invention as a fall detection device, and describes falls as an example of abnormal body movement, all environmental tolerance determinations in the ’481 Patent must be preceded by the detection of an abnormal event. The appeal brief does not compel this conclusion, as a matter of fact. In addition, Body Media’s claim construction brief, which fails to even mention the legal standards that must be met in order to prove prosecution history estoppel or prosecution history disclaimer, and does not explain how iLife’s appeal brief satisfies each of those standards, provides an insufficient basis to allow this court to make the legal findings Body Media requests. (ECF No. 76 at 15-16); LG Electronics U.S.A., Inc. v. Whirlpool Corp., 798 F.Supp.2d 541, 565-66 (D. Del. 2011) (summarizing applicable legal standards).

The court, nevertheless, considered Body Media’s position. At the time the appeal brief was submitted, claims 25 through 32 were allowed, and claims 1 through 8, 10, 14 through 18, 20, 21, 23, and 24 had been rejected as being obvious in light of various prior art patents. (ECF No. 76-2 at 3.) The appeal brief provides no information about why the remaining claims had been allowed. The speculative arguments made by both parties at the Markman hearing about why certain claims had been allowed at that point, while others had not, have been assigned no weight by the court. (ECF No. 104 at 30-34, 50-53.) In the appeal brief, iLife distinguishes the prior art on various grounds, including that the prior art did not a) measure both

static and dynamic acceleration, b) generate tolerance indicia to determine environmental tolerance, c) use dynamically selected thresholds, d) generate statistics about prior accelerative events, e) use horizontal sensor axis, or f) determine environmental tolerance independent of the starting attitude of the body. (Id. at 10-17.) iLife did not argue that the rejected claims should be allowed because the claimed invention requires a two-step process in which an abnormal movement must be detected before environmental tolerance is determined, while the prior art does not teach such a two-step process. Cordis Corp. v. Medtronic Ave, Inc., 511 F.3d 1157, 1177 (Fed. Cir. 2008) (both prosecution history disclaimer and estoppel require actions or statements that clearly and unmistakably disavow claim scope). As such, contrary to Body Media's contentions, the appeal brief could not qualify as prosecution history estoppel or disclaimer that would compel this court to accept its proposed construction.

In summary, Body Media's citation to certain embodiments in which abnormality is determined before environmental tolerance is assessed does not support its proposed claim construction where other embodiments do not follow this two-step structure and the claims indicate that these two determinations can be independently made. Body Media fails to make a sufficient showing, as either a factual or legal matter, that the appeal brief rises to the level of prosecution history estoppel or disclaimer in support of its proposed construction.

ii. Intolerable Movements Need Not be Damaging or Harmful

Body Media asserts that all intolerable movements or events must cause harm, damage, or alarm to the body. (ECF No. 76 at 13-21.) iLife contends that intolerable events are simply those that fall outside a range of acceptability, based upon the context of a particular environment. (ECF No. 66 at 20-24.) The record does not support the narrow construction that Body Media proposes, and does support iLife's proposed construction.

According to Body Media, all the patents-in-suit “explain that movements ‘beyond tolerance’ are ‘damaging, destructive, crippling, harmful, injurious, or otherwise alarming or, possibly, distressing to the body.’” (ECF No. 76 at 13.) Body Media cites, repeatedly, to a single passage from the specification of the ’481 Patent, which appears verbatim in each of the other patents-in-suit, to support its proposed construction. (*Id.* at 13, 14, and 16.) That specification passage, which appears in the Background of the Invention section, and precedes the inventor’s conclusion that improvement on the prior art is needed because existing technology does not evaluate movement over time and determine whether such movement is tolerable, reads, in its entirety “...with neither type [of conventional detector] capable of evaluating body movement to determine whether the same is normal or abnormal; and if abnormal, whether such movement is so abnormal to be beyond tolerance, for instance, to be damaging, destructive, crippling, harmful, injurious, or otherwise alarming or, possibly, distressing to the body...” ’481 Patent, col. 1, lns. 54-64. The phrase “for instance” clearly indicates that the words following it are exemplary. The words “damaging,” “destructive,” “crippling,” “harmful,” “injurious,” and “alarming” appear nowhere else in the ’481 Patent. This single passage, standing alone, does not compel the construction that Body Media proposes.

The remainder of Body Media’s citation to intrinsic evidence in support of its proposed construction consists of iLife’s appeal brief and a discussion of the prior art in the Background of the Invention section of the patent. (ECF No. 76 at 15-16, 17.) The court discussed the limited relevance of the appeal brief for purposes of the claim construction disputes at issue in this case earlier in this opinion. To reiterate, iLife’s general and occasional statements in the brief that the invention relates to detection of abnormal events, such as a fall, do not rise to a level at which they could change the meaning of the patent’s specification. Nor does iLife’s

discussion of the prior art require that environmental tolerance be construed to mean a damaging or harmful movement. iLife explains that its invention is distinguishable from the prior art because the prior art could not a) recognize the possible causes of changes in body activity, b) provide any position change analysis, or c) measure both dynamic and static acceleration. '481 Patent, col. 1, lns. 16-50. This explanation includes no discussion of harm or damage, and, therefore, provides no support for Body Media's assertion that intolerable events must harm or damage the body.

The specification, instead, contradicts Body Media's proposed construction. The '481 Patent specifically discloses applications of its invention to cargo monitoring and tactical maneuvering monitoring, and explains that the claimed system could be programmed to distinguish "temperature, pressure, force, sound, light, relative position, and the like." '481 Patent, col. 2, lns. 38-41 and 45-48; col. 11, lns. 35-37. In those embodiments, intolerance need not indicate that the "body," i.e., the package or the soldier, has been harmed. A package can tip over, which the shipper may not prefer, allow, accept, or permit, but not be torn or crushed or damaged in any way. A soldier can veer off course or walk too slowly, which the commander may not prefer, allow, accept, or permit, but not be injured or in distress. Likewise, a particular level of sound could be deemed unacceptable, but not harmful, as, for example, in a classroom. The patent's disclosure of these variant applications reflects that intolerable events need not be harmful. The '481 Patent explains that "environmental tolerance" is a function of the application and the environment and "would likely be very different for a monitored body of an elderly person with a heart condition, a toddler, a box in a freight car, a container of combustible gas, etc." '481 Patent, col. 8, lns. 60-67. Against these broad disclosures in the '481 Patent, Body Media's citation to a single specification passage, and iLife's general discussion of the

deficiencies in the prior art, which does not even mention harm or damage, does not support Body Media’s contention that intolerable events must be damaging or harmful. Within the context of the ’481 Patent, intolerable movements and events can be harmful, but need not be.

For all these reasons, the court adopts the claim construction proposed by iLife for the environmental tolerance terms. The court notes Body Media’s objection to using the word “acceptable” in that construction, but finds that it is not well-founded. (ECF No. 76 at 16.) Although Body Media is correct that the word “acceptable” is used only once in the patent, in connection with the word “normal,” that single usage does not indicate that the common and non-technical word “acceptable” cannot be used in its ordinary sense in construing the claim term “environmental tolerance.” Simply put, and from a layman’s perspective, tolerable and acceptable are synonyms; as are permissible and allowable. The specification of the ’481 Patent does not indicate that any special or technically significant meaning need be assigned to the word “tolerance,” beyond the discussions above. Because iLife is correct that the concept of tolerance, in the context of the patents-in-suit, indicates that measurements are being made, and compared, the word “acceptable” is most appropriate. Therefore, the court adopts iLife’s proposed construction.

iLife’s proposed construction, although broader than Body Media’s proposed construction, is supported by the intrinsic evidence of the ’481 Patent. The “within environmental tolerance” claim terms will be construed to mean “acceptable based upon criteria including a specified value given the environment and application for which body movement is being evaluated.” This claim construction determination, as with all claim construction determinations, is made independent of any decision with respect to validity or infringement, which are matters not before the court at this time.

c. Construction of Normal/Abnormal Accelerative Events Term

The construction of the “normal/abnormal accelerative events” claim term follows from the above discussion. Body Media’s proposed construction attempts to import the preferred fall detection embodiment into the claims, which is improper as a matter of law. Phillips, 415 F.3d at 1323; Abbott Laboratories, 566 F.3d at 1288 (“[w]hen consulting the specification to clarify the meaning of claim terms, courts must take care not to import limitations into the claims from the specification”). For the reasons set forth above, there is no basis for this court to find that iLife intended to limit its invention to this preferred embodiment.

Body Media proposes that parentheticals about walking, sitting, tripping, and falling be included in the construction of these claim terms. (ECF No. 76 at 26-27.) Although there is no dispute that the specification of the ’481 Patent includes the language that Body Media proposes, the surrounding context of the language indicates that it is exemplary and not limiting. ’481 Patent, col. 11, lns. 24-26. Preceding the proposed language is the qualifier “[e]xemplary processor is programmed” and following it is a statement that the processor can otherwise be programmed to distinguish physical characteristics such as temperature, pressure, force, sound, and light. Id., col. 11, lns. 24-32. The context in which Body Media’s proposed language appears, combined with the discussion above about the breadth of the disclosures of the ’481 Patent itself, indicates that it would be improperly limiting to insert words specific to the fall detection embodiment into the construction of this claim term. To do so would make the claim construction nonsensical when applied to alternative embodiments, such as cargo, tactical

maneuvering, light, or sound monitoring or distinguishing. '481 Patent, col. 2, lns. 38-41 and 41-51; col. 7, lns. 37-45; and col. 8, lns. 50-55 and 60-67.⁴

iLife is correct that the plain and ordinary meaning of these terms, as understood and applied in the context of a specific environment and embodiment, will suffice for purposes of claim construction.

2. The Acceleration Terms

Term	iLife's Proposal	Body Media's Proposal
accelerative phenomena/accelerative events	occurrences of change in velocity of the body (or acceleration), whether in magnitude, direction or both	occurrences of change in velocity of the body whether in magnitude, direction, or both or occurrences of change in velocity of the body or occurrences of acceleration of the body, whether in magnitude, direction, or both

⁴ The court notes that it reaches this conclusion solely by reference to the disclosures of the '481 Patent, even though iLife cites only to the '461 Patent in this portion of its claim construction brief. (ECF No. 66 at 31-32.)

static acceleration	change in velocity (or acceleration) indicating position [of the body] relative to earth	acceleration experienced as a result of gravity
dynamic acceleration	change in velocity (or acceleration) indicating vibration or movement	acceleration experienced as a result of motion
dynamic and static accelerative phenomena of the body	occurrences of change in velocity (or acceleration) indicating vibration or movement of the body and position of the body relative to earth using gravity as a gauge of position	occurrences of change in velocity of the body whether in magnitude, direction, or both, based on motion of the body and the force due to gravity on the body

The above charts reflect that there are innumerable minor differences between the parties' proposed constructions, such as inclusion of the parenthetical "(or acceleration)," and the word "gravity," as opposed to the concept of body position relative to the earth in the construction. Most of these disagreements are not substantive, and the remainder are readily resolved by reference to the language of the patents-in-suit themselves. The court will address each dispute in turn.

The first dispute is about the use and meaning of the parenthetical "(or acceleration)" and appears in the disputed constructions of all the acceleration terms. iLife proposes that the parenthetical be included in the construction of these terms because it appears in the patents themselves. (ECF No. 66 at 15.) Body Media does not dispute that iLife acted as its own lexicographer with respect to these terms, but argues that iLife's definition will cause jury confusion because if the parenthetical is read to mean "occurrences of change in velocity or of change in acceleration" the definition will include the concept of "jerk," and the substantive meaning of the patents would be changed. (ECF No. 76 at 22); Philips, 415 F.3d at 1316. Body Media's argument is well-founded. There is no disclosure in the patent specification of the

concept of “jerk.” iLife, in fact, does not argue that the concept of “jerk” is disclosed in its patents, but argues that because the patents explicitly define the acceleration terms using the parenthetical, this court must use the same definition in its claim construction. The court disagrees.

Read in context, the parenthetical was iLife’s attempt to indicate that the phrase “change in velocity” is just another way of saying “acceleration.” Using iLife’s definition, with the parenthetical, without further explanation to the jury, would likely cause confusion or speculation. Although the patentee may act as its own lexicographer, this court has the duty to craft a claim construction, and ultimately a jury instruction, that is understandable to a lay jury. The construction arrived by the court does not change the meaning of the definition chosen by iLife, and only grammatically restructures iLife’s chosen definition to make it more understandable to a jury of lay persons. For all the acceleration terms, the jury will be instructed that the term “acceleration” means “velocity of the body.” The parenthetical need not be thereafter repeated in the construction of each claim term that includes some form of the word “acceleration.”

Construction of the terms “accelerative phenomena” and “accelerative events” follow from this determination because once the dispute about using the parenthetical is resolved, the parties agree that these claim terms mean “occurrences of change in velocity of the body, whether in magnitude, direction or both.”

The remaining disputes concern the proper meaning of static and dynamic acceleration. With respect to the term “static acceleration,” the parties disagree about whether the concepts of gravity and body position relative to the earth should be included in the

definition. With respect to both “static acceleration” and “dynamic acceleration,” the parties disagree about whether acceleration “indicates” or “results from” movement or gravity.

The disclosure of the ’481 Patent, and the other patents in its family, are unwavering in their definition of “static acceleration.” The term is always discussed in relationship to using measurements of gravitational pull on a body at rest to determine the position (meaning orientation, not location) of a body. iLife explained this concept to the court at the technology tutorial. (ECF No. 96 at 3-4, 8, 10-11, 12-13, 14.) The intrinsic evidence cited by both iLife and Body Media confirm this explanation. ’481 Patent, col. 1, lns. 41-47; col. 5, lns. 39-41; ’939 Patent, col. 14, lns. 27-35, col. 17, ln. 66-col. 18, ln. 24; ’461 Patent, col. 15, ln. 63-col. 16, ln. 3; ’331 Patent, col. 14, lns. 27-38, col. 14, ln. 60-col. 15, ln. 5, col. 18, lns. 4-10; (see ECF No. 76-2 (iLife appeal brief) at 5, 6). The real dispute with respect to this term is how much of this explanation must be incorporated into the definition of “static acceleration” itself. iLife’s briefing, and the patents, confirm that “static acceleration” refers to output measurements made along several axis, which measurements are then used to gauge body position. (ECF No. 66 at 19); ’481 Patent, col. 1, lns. 39-47, col. 2, lns. 23-32, col. 5, lns. 33-41; ’939 Patent, col. 14, lns. 27-35. The court’s task is to make this concept understandable and accessible to a lay jury. Using the easily understood phrase “due to” properly expresses the meaning of this claim term in the context of the patents. Therefore, the term “static acceleration” should be defined as “the change in velocity of a body due to gravity.” If necessary for the jury to resolve a disputed issue of fact, the court will further instruct the jury that “static acceleration measurements are used to gauge or determine the position (meaning orientation or angle, and not geographical location) of a body in relationship to the earth.” These constructions resolve the disputes between the parties, and actually embrace the constructions proposed by both parties.

There are two differences in BodyMedia and iLife's proposed constructions of the term "dynamic acceleration." First, they define the term slightly differently: "vibration or movement" versus "motion." And second, they disagree about whether "dynamic acceleration" "indicat[es] vibration or movement," or is "experienced as a result of motion."

With respect to the first difference, the patent explicitly defines dynamic acceleration by referring to "vibration, body movement, and the like." '481 Patent, col. 1, lns. 45-46. The court has been presented with no reason to deviate from the precise phrase used in the patent. The court, therefore, adopts iLife's proposed construction in this regard and defines "dynamic acceleration" as "vibration or movement."

In resolving the dispute with respect to whether the word "indicating" or the phrase "experienced as a result of" should be used, the above discussion of static acceleration is instructive. Again, in the patents-in-suit, measurements of static and dynamic acceleration are made across various axis, and are then used to determine different characteristics about a body. Static acceleration measurements result from gravity; dynamic acceleration measurements result from vibration or movement. The grammatical structure of the claim construction of both acceleration terms should be the same, and the words "due to" would be readily understandable to a jury. The term "dynamic acceleration," therefore, shall be construed as "the change in velocity of the body due to vibration or movement."

Construction of the claim term "dynamic and static accelerative phenomena of the body" follows from the above constructions. The term shall be construed to mean "occurrences of change in velocity of the body due to vibration or movement or due to gravity."

3. The Miscellaneous Term

Term	iLife's Proposal	Body Media's Proposal
independent of a starting attitude of said sensor	plain and ordinary meaning	without reference to the starting orientation of the sensor

iLife contends that Body Media's proposed construction unnecessarily narrows this claim phrase. (ECF No. 66 at 28-29.) Body Media asserts that its proposed construction is not intended to be limiting, but only clarifying. (ECF No. 76 at 27.)

As an initial matter, the word "independent" does not need to be construed or clarified. It is a common, easily understood word and no party indicates that the patents-in-suit ascribe some special meaning to it. A layperson, however, may not understand the meaning of the term "attitude" in this context. It does not appear that iLife objects to Body Media's use of the word "orientation." iLife used the words "attitude" and "orientation" interchangeably during prosecution of the '481 Patent, in its appeal brief. (ECF No. 76-2 (iLife appeal brief) at 13.) Therefore, the claim term "independent of a starting attitude of said sensor" shall be construed to mean "independent of a starting orientation of said sensor."

D. Claims Alleged to be Indefinite

Body Media contends that nine claim terms are indefinite, rendering the pertinent asserted claims invalid. These terms, by the number at which they appear in the amended joint disputed claim terms chart, (ECF No. 64-1), are:

Number	Term
2	“accelerative event characteristic”
7	“representative mathematically of at least part of said environment”
12	“substantially continuously measuring”
13	“a successful attempt to change position”
14	“an unsuccessful attempt to change position”
15	“a motion of a body moving with a gait associated with a disability”
16	“a swaying motion”
17	“a near fall”
18	“relatively small to inactive as a function of said environmental representation”

Based upon the arguments raised during claim construction, these nine claim terms can be grouped into four sets: (1) substantially continuously measuring term (term 12); (2) accelerative event characteristic and representative mathematically terms (terms 2 and 7); (3) the change position and type of motion terms (terms 13-17); and (4) relatively small to inactive term (term 18).⁵

To reiterate, in order to prevail on its indefiniteness challenge, Body Media must prove, by clear and convincing evidence, that the challenged claims of the patents-in-suit, read in light of the specification and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention. Nautilus, 134 S.Ct. at 2124.

⁵ The reader is directed to ECF No. 66-1 which lists, in chart form, the asserted claims in which each allegedly indefinite claim term appears.

1. Substantially Continuously Measuring Term

Term	iLife's Proposal	Body Media's Proposal
substantially continuously measuring	plain and ordinary meaning	indefinite

As an initial matter, although this claim term appears only in claim 11 of the '890 Patent, iLife cites to the specification of the '481 Patent to support its argument that this claim term is definite. This incongruence is not problematic, however, because the specification passages that discuss this claim term in the '890 Patent appear verbatim in the portions of the '481 Patent's specification to which iLife cites. In the interest of consistency this court will cite to the relevant specification passages from the '890 Patent, not the '481 Patent.

Turning to the merits of Body Media's argument with respect to this term, Body Media contends that this term uses a word of degree but the patent "give[s] no guidance as to how to distinguish between 'substantially continuous' and 'continuous'." (ECF No. 76 at 33-34); see Seattle Box Co., Inc. v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826 (Fed. Cir. 2984) ("When a word of degree is used, the district court must determine whether the patent's specification provides some standard for measuring that degree"). According to Body Media, this claim term is indefinite under the Supreme Court's "reasonable certainty" test because "there is no guidance in the intrinsic record as to what constitutes 'substantially continuous' and the scope is not apparent on the face of the term." (ECF No. 76 at 34.) To reiterate, Body Media has the burden to prove that a claim term is indefinite by clear and convincing evidence, even after Nautilus.

iLife argues that a POSA "would have no trouble understanding that processing of the output from the sensor should be sampled periodically instead of continuously, due to power consumption concerns." (ECF No. 66 at 32-33.) Body Media presented no extrinsic evidence,

including expert testimony, concerning what a POSA would and would not understand about power consumption concerns of processors in the pertinent field and across different devices and applications.

The specification of the '890 Patent explains that a processor repeatedly samples and compares input values in order to determine a last stable position of the body. '890 Patent, col. 9, ln. 59-col. 10, ln. 9; see '481 Patent, col. 7, ln. 60-col. 8, ln. 11. The patent goes on to explain that the sampling should not be continuous due to power consumption concerns, but "should be substantially continual." Id. The reader is told, therefore, that measurements should be taken as often as possible without creating a power consumption problem. Based upon the other disclosures of the patents-in-suit, a reader understands that the exact frequency of measurement will differ depending on the kind of processor used, the kind of sensor used, the application, and the environment, making it impossible for the specification to set a specific frequency of measurement that would be appropriate in all situations. The term is, instead, adequately defined for purposes of all applications by explaining to the POSA that the measurements should be as near to continuous as possible without creating power consumption concerns.

Against these disclosures, Body Media cites to several legal decisions and attorney argument that "[t]he intrinsic record is sparse" and that the specification provides "no guidance" about how to define the word of degree "substantially continuous." (ECF No. 76 at 33-34.) Although the Supreme Court's adoption, in Nautilus, of the "reasonable certainty" test made it easier for accused infringers to prove indefiniteness, a party challenging the validity of a patent still must come forth with clear and convincing evidence that the claims lack the requisite specificity. Nautilus, 134 S.Ct. at 2124. Based upon this record, this court could not conclude

that Body Media met its burden to prove that the “claims, read in light of the specification delineating the patent, and the prosecution history, fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” Id. The patent provides parameters and a frame of reference for determining how often the processor should take measurements; as often as possible without raising power concerns for that particular processor in any particular environment. Body Media fails to establish that these parameters would have insufficient meaning to a POSA such that he or she would not be reasonably certain about the scope of the invention.

Body Media did not establish that the claim term “substantially continuously measuring” is indefinite. For purposes of these proceedings, the claim term “substantially continuously measuring” shall be construed to mean “measuring at a frequency as near to continuous as possible without creating power consumption concerns.”

2. Accelerative Event Characteristic and Representative Mathematically Terms

Term	iLife’s Proposal	Body Media’s Proposal
accelerative event characteristic	a feature, quality, or attribute of an occurrence of change in velocity (or acceleration) whether in magnitude, direction or both, which can be used to distinguish or identify a particular type of body movement or activity	indefinite

Term	iLife’s Proposal	Body Media’s Proposal
representative mathematically of at least part of said environment	based on a mathematical depiction, delineation, model or like measured description of the environment associated with the body	indefinite

Body Media contends that both of these terms are indefinite. The “representative mathematically” term appears only in claim 3 of the ’481 Patent, which reads “the system set

forth in claim 1 wherein said at least one accelerative event characteristic is representative mathematically of at least part of said environment.” 481 Patent, cl. 3 (emphasis added). These two terms are, therefore, related to each other. (ECF No. 76 at 30-31.) The “accelerative event characteristic” claim term appears in every asserted claim except claims 25-27 of the ’481 Patent. (ECF No. 66-1.)

a. Accelerative Event Characteristic Term

Body Media contends that “accelerative event characteristic” is indefinite because, although the term “accelerative event” is defined in the specification, and although the term “accelerative event characteristic” appears eight times in the specification of the ’481 Patent, there is no notice to a POSA of “what the accelerative event characteristic is, how it is defined, or how it is used.” (ECF No. 76 at 28-29.) According to Body Media, the specification fails to define “accelerative event characteristic” for any particular application, and iLife’s proposed construction is so broad that it “may extend patent protection beyond what should properly be afforded by the inventor’s patent.” (*Id.* at 29-30.) Again, Body Media’s indefiniteness challenge is supported by citation to various legal decisions, and to passages from the ’481 Patent’s specification. (*Id.* at 28-30.) Body Media presents no extrinsic evidence in support of its position.

iLife argues that the phrase “accelerative event characteristic” combines a defined term, “accelerative event,” with the word “characteristic,” which has a plain and ordinary meaning, and is used in that manner in the patents-in-suit. (ECF No. 66 at 14-15.) According to iLife, a “characteristic” is an identifying or distinguishing feature, quality, or attribute of a person, place, or thing and the patents include numerous examples and explanations about how such characteristics are used for purposes of the claimed invention. (*Id.* at 15.)

Based upon the disclosures of the '481 Patent itself, Body Media cannot satisfy its burden to prove that a POSA would not understand the scope of the claimed invention, with reasonable certainty. The absence of an explicit definition for the common term "characteristic" does not make this claim term indefinite, as Body Media appears to contend. Where a commonly understood word is given its widely accepted meaning and the intrinsic and extrinsic evidence does not meaningfully add to or contradict that meaning, no further explanation is needed. Phillips, 415 F.3d at 1314. Elsewhere in the patent, the word "characteristic" is used in its common sense, to refer to qualities or attributes by explaining that the processor can be programmed to distinguish "other physical characteristics, including temperature, pressure, force, sound, light, relative position (including lying down), and the like." '481 Patent, col. 11, lns. 29-32 (emphasis added).

That the word "characteristic" is given its common meaning in the patents is confirmed when the word is combined with the phrase "accelerative event" in the specification. In those instances, the context in which the term is used provides sufficient meaning to allow any reader, including a POSA, to understand the scope of the invention with reasonable certainty. The specification explains that "accelerative event characteristics" will be defined by the specific application and environment, and discusses the various applications to which the invention can be applied, e.g., fall detection, cargo monitoring, and tactical maneuvering. '481 Patent, col. 7, lns. 37-45; col. 8, lns. 50-67; col. 11, lns. 15-22 and 33-38. The specification also explains that sensed accelerative phenomena are processed as a function of an "accelerative event characteristic," which are ultimately used to determine whether body movement is within tolerance. '481 Patent, col. 2, lns. 10-22, 52-58; col. 2, ln. 59-col. 3, ln. 3; col. 6, lns. 1-6; col. 8, lns. 55-60; col. 8, lns. 55-67, col. 11, lns. 15-22 and 33-38. Because tolerance has been

construed as determining, based upon criteria including a specific value, and based upon the environment and application, whether a movement is acceptable, any reader can understand that expression of the “accelerative event characteristic” will vary depending on the environment and application and how the “accelerative event characteristic” is used in the patents-in-suit. See Sec. II.C.1. The ’481 Patent gives specific examples of how tolerance thresholds can be expressed; i.e., G forces and degrees, which further imputes meaning into the “accelerative event characteristic” claim term. Id., col. 8, lns. 11-49.

Within the context of the patents-in-suit, and the disclosures made therein, there is no basis for this court to find that a POSA would be unable to discern the scope of the invention with reasonable certainty because the phrase “accelerative event characteristic” is indefinite. Even were this not the case, Body Media’s submission, which consists of citations to legal authorities and specification passages, and attorney argument, provides no evidentiary basis for this court to find that Body Media proved indefiniteness by clear and convincing evidence. iLife’s proposed construction is, therefore, correct. The court, however, will delete the end of iLife’s proposed construction because it is superfluous, and improper. The final clause of iLife’s proposed construction indicates that an “accelerative event characteristic” “can be used to distinguish or identify a particular type of body movement or activity.” (ECF No. 64-1 at 3.) This clause need not be incorporated into the construction of the claim term “accelerative event characteristic;” the surrounding disclosures and claim limitations express those notions.

Body Media did not establish that the claim term “accelerative event characteristic” is indefinite. For purposes of these proceedings, the claim term “accelerative event characteristic” shall be construed to mean “a feature, quality, or attribute of an occurrence of change in velocity of the body, whether in magnitude, direction or both.”

b. Representative Mathematically Term

Claim 3 is the only time that the claim term “representative mathematically of at least part of said environment,” or any variant thereof, appears in the ’481 Patent. Body Media contends that this claim term is indefinite because “accelerative event characteristic” is indefinite, and because none of the “facially mathematical” intrinsic evidence cited by iLife is linked to the “accelerative event characteristic.” (ECF No. 76 at 30-31.) iLife relies upon the specification of the ’461 Patent, which expressly defines “environmental representation” as “any mathematical or other suitable depiction, delineation, model or like measured description of the environment associated with the body” in support of its argument that the claim term is definite. (ECF No. 66 at 25.) iLife also relies upon two examples from the ’481 Patent specification in which mathematical models are used to represent an environment, i.e., by reference to G forces and angle measurements. (*Id.* at 25-26 (citing ’481 Patent, col. 8, lns. 11-15 and 40-45.))

Body Media admits that its attack on this claim term is derivative of its argument that “accelerative event characteristic” is indefinite. (ECF No. 76 at 30-31.) It, therefore, follows from this court’s finding that the claim term “accelerative event characteristic” is not indefinite that “representative mathematically of at least part of said environment” is also not indefinite. The same disclosures in the ’481 Patent about accelerative events characteristics varying based upon applications and environments, and about the relationship between such characteristics and tolerance determinations apply with equal force here, and inject sufficient meaning to allow any reader to understand the scope of this invention with reasonable certainty. Body Media has provided no evidentiary basis for this court to reach a contrary conclusion, by clear and convincing evidence, or any other standard. iLife’s proposed construction, with slight modifications to more closely mirror the language of the claim language itself, is correct.

Body Media did not establish that the claim term “representative mathematically of at least part of said environment” is indefinite. For purposes of these proceedings, the claim term “representative mathematically of at least part of said environment” shall be construed to mean “a mathematical depiction, delineation, model or like measured description of at least part of said environment.”

3. The Change Position and Type of Motion Terms

Term	iLife’s Proposal	Body Media’s Proposal
a successful/unsuccessful attempt to change position	plain and ordinary meaning	indefinite
Term	iLife’s Proposal	Body Media’s Proposal
a motion of a body moving with a gait associated with a disability/a swaying motion/a near fall	plain and ordinary meaning	indefinite

Body Media contends that all these terms are indefinite because they are mentioned only “once in passing” in the specification of the ’939 Patent, providing a POSA with no information about the scope of the invention. (ECF No. 76 at 31-32.) These terms are found in claims 2 and 22 of the ’939 Patent, and claims 2 and 12 of the ’331 Patent, which is identical to the ’939 Patent because it issued from a continuation application. All four claims are dependent claims and all four state that “wherein one of said plurality of different types of motion is one of: no motion, a successful attempt to change position, an unsuccessful attempt to change position, a motion of a body moving with a gait, a motion of a body moving with a gait associated with a disability, a swaying motion, a near fall, and a fall.” ’939 Patent, cls. 2 and 22; ’331 Patent, cls. 2 and 12. These terms all appear in the ’939 and ’331 Patents’ specifications, in the detailed description of Figure 12. ’939 Patent, col. 16, ln. 53-col. 17, ln. 20; ’331 Patent, col. 16, ln. 58-col. 17, ln. 25.

The specifications explain that a controller continually sends spherical polar (“SP”) coordinates to a processor, which coordinates represent the motion of the body and are compared against a library of prerecorded sets of SP coordinates representing different types of motion to see if there is a “match,” causing a signal or alarm to be triggered. ’939 Patent, col. 16, lns. 37-42, col. 17, lns. 8-20; ’331 Patent, col. 16, lns. 42-46, col. 17, lns. 13-20. The successful attempt to change position, unsuccessful attempt to change position, moving with a gait associated with a disability, swaying motion, and near fall movements are specific examples of the “types of motion” that can be programed and saved by the developer or user into the prerecorded library of SP coordinates against which a body’s motion can be compared during operation. ’939 Patent, col. 16, ln. 53-col. 17, ln. 20; ’331 Patent, col. 16, ln. 58-col. 17, ln. 25. The parameters for these types of motions will be determined and preset by the developer or user; the patents do not claim particular SP coordinates, or a range of SP coordinates, to delineate each type of motion as part of the invention. These prerecorded SP coordinates will instead likely differ depending on the application, environment, and user. The prerecorded SP coordinates for what is a “gait associated with a disability” will likely differ for a stroke patient and a teenager who has had knee surgery. The patent is not made indefinite because these unclaimed SP coordinates are not specified. In this context, the specifications include adequate disclosures about the meaning of all the change in position and type of motion terms that even a lay person could understand. It follows that if a layperson can assign adequate meaning to the terms, they are not indefinite under controlling legal authority, which asks whether a POSA would understand the scope of the claim terms with reasonable certainty. iLife is correct that the plain and ordinary meaning of these terms is sufficient.

Body Media did not establish that the “successful/unsuccessful attempt to change position” or “a motion of a body moving with a gait associated with a disability” or “a swaying motion” or “a near fall” claim terms are indefinite. For purposes of these proceedings, these claim terms will be given their plain and ordinary meaning.

4. Relatively Small to Inactive Term

Term	iLife’s Proposal	Body Media’s Proposal
relatively small to inactive as a function of said environmental representation	plain and ordinary meaning	indefinite

This claim term is found in claims 3 and 23 of the ’461 Patent. Body Media contends that the phrase is indefinite because it is a word of degree for which the patents provide no standard for measurement. (ECF No. 76 at 33.) Body Media’s argument with respect to the purported indefiniteness of this term consists of a single sentence that “iLife’s conclusory citations in its opening brief, fail to provide sufficient disclosure to satisfy the definiteness requirement.” (*Id.*) iLife contends that this claim term cannot be indefinite because, when a word of degree is used, the inclusion of examples in a patent weighs against a finding of indefiniteness. (ECF No. 66 at 25-26.)

As an initial matter, Body Media’s single sentence of argument, attacking the insufficiency of iLife’s citation to evidence in support of the definiteness of this claim term cannot carry Body Media’s burden to demonstrate indefiniteness, by clear and convincing evidence. iLife has no burden to prove that the ’461 Patent is valid; the patent is presumed valid by operation of law. 35 U.S.C. § 282. Body Media can rebut that presumption and prove that certain terms are indefinite, rendering the claims in which they appear invalid, but it has the duty to come forth with evidence sufficient to demonstrate that the claims, read in light of the specification and the prosecution history fail to inform, with reasonable certainty, those skilled in

the art about the scope of the invention. Nautilus, 134 S.Ct. at 2124. Citing one case and stating that iLife's citation to evidence is insufficient to prove definiteness, reverses the burden of proof, and cannot, under any applicable legal standard or authority, establish that this claim term is indefinite.

The court has, nevertheless, independently examined the '461 Patent's disclosures to assess whether, if properly presented, there is any plausible argument that the phrase "relatively small to inactive as a function of said environmental representation" is indefinite. As an initial matter, the parties have agreed that the proper construction of the phrase "environmental representation" is "any mathematical or other suitable depiction, delineation, model or like measured description of the environment associated with the body." (ECF No. 64-1 at 1.) Therefore, the only possible dispute with respect to this claim term is whether "relatively small to inactive" is adequately defined.

The claim term appears six times in the specification of the '461 Patent. '461 Patent, col. 3, lns. 28-33, col. 9, lns. 29-36, col. 11, lns. 10-20, col. 12, lns. 23-30, col. 16, lns. 30-38, and col. 21, lns. 52-63. Each time, the patent explains that the processor can determine when body activity is relatively small to inactive as a function of the environmental representation, and sound an alarm if such a condition persists for a threshold time period. Id. Asserted dependent claims 3 and 23 claim a device that is programmed to determine inactivity and sound an alarm if the condition persists over time. As with the change in position and type of motion terms, "relatively small to inactive" will vary across applications and environments, and is subject to developer or user programming about what activity levels and time thresholds are acceptable. A layperson could reach this understanding upon a careful reading of the patent's

specification. It follows, therefore, that a POSA would understand the scope of this claim term as well.

In this context, and given Body Media's scant support for its indefiniteness attack on this claim term, the court concludes that it is not indefinite. iLife is again correct that the plain and ordinary meaning of this term will suffice for purposes of these proceedings.

III. CONCLUSION

For the reasons set forth above, the court adopts the foregoing claim constructions, and determines that Body Media failed to establish that any claim terms are indefinite. An order setting forth the construction of all claim terms that were disputed at any point in these proceedings will be filed contemporaneously with this opinion.

Dated: February 27, 2015

BY THE COURT:

/s/ Joy Flowers Conti
Joy Flowers Conti
Chief United States District Judge